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ABSTRACT

This study considers the theories of impulse buying in an examination of the effects on circulation of library books when books are displayed face front (with all or most of the book jacket showing) as opposed to spine front. Reviews of the literature on consumer behavior and on library displays support the hypothesis of this study, i.e., that libraries can benefit from the techniques used in retail marketing to boost the circulation of all types of books. Conducted at the Parkwood Branch of the Durham Public Library in North Carolina, the 2-month-long research project used the four-cell pretest-posttest pattern to examine circulation as related to face-front or spine-front display of 300 books located in the Adult Current Fiction section. A comparison of circulation of the control group (displayed spine-front) and the experimental group (displayed face-front) using analysis of variance (ANOVA) showed a significant difference in both average number of circulations and weekly circulation figures between the two groups during the posttest period, implying that the experimental variable of face-front display was associated with the circulation increase. It is concluded that information consumers are influenced by the same marketing techniques as retail consumers. (KM)

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The Effect of Face-Front Display on the Circulation of Books in a Public Library

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Completed in Partial Fulfillment of the Requirements for the Masters of Library Science

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INTRODUCTION

Much research has been done on the effects of different variables on the circulation of library books, especially that of displays. The research repeatedly confirms that books displayed circulate significantly more than books not displayed. Studies conducted in the retail sales sector support the hypothesis and provide ideas for libraries and insight into consumer behavior.

Very little has been written, however, about the method of display. There have been studies of location, age and size of displays as well as behavioral studies on impulse buying and information processing. But the issue of displaying books face front (with all or most of the book jacket showing) as opposed to displaying them spine front has not been studied. The hypothesis of this research project is that books displayed face front will circulate more than those displayed spine front.

Libraries face a never-ending struggle to justify themselves to funding and governing agencies. Circulation statistics are used and ways to increase the numbers are always welcome. This study, if the hypothesis is proven, should be relevant to all types of libraries when planning and implementing displays. It should support the theories of impulse buying and relate them to the world of libraries. Most importantly, it should give library administrators insight into their patrons; specifically, it should show them that information consumers are subject to the same marketing techniques used on retail consumers.

A REVIEW OF THE LITERATURE

There are some basic concepts of consumer behavior that need to be reviewed and defined as a prelude to a review of the literature on library displays. These concepts are the cornerstones of marketing strategy, as behavior analysis should lead to a means of better satisfying consumer needs (Robertson, Zielinski and Ward, 1984). "From a managerial point of view, an understanding of consumer behavior can lead to better managerial decisions and to an appreciation of the critical role of creativity in marketing." (Runyon, 1977, p.24.) This section of the literature review will follow the purchase process from perception and information processing to the purchase itself including impulse buying.

Perception and information processing are key points. Runyon (1977) defined perception as the process by which "we make sense of the world." We select from the many that are presented the stimuli which we will process. Perceptual categorization is the process through which we make all that stimuli managable and organized by assigning perceptual classes to objects and events (Runyon). Marketing should surround products with aids to categorization - signs, tags, markings, displays, etc.

Engel, Blackwell and Miniard (1986) described the stages that information passes through while being processed by the consumer. They are: exposure, attention, comprehension or perception, yielding or acceptance, and retrieval. Consumers cannot possibly process all the stimuli which are presented to the

brain and an understanding of what factors influence attention can be very useful. Attention is affected by two major determinants: personal and stimulus (Engel, et al.). Personal determinants are individual differences such as motivation and attitudes thus making attention highly selective. These differences are the roadblocks against which strategies should be planned. Stimulus factors are the characteristics of the stimulus itself: size, color, intensity, contrast, position, novelty, etc. (Engel, et al.). Stimuli that are related to a consumer's needs and are novel attract attention (Robertson, Zielinski, Ward, 1984).

Now let us look at how we make a purchase decision. Purchase is determined by buying intentions and situational influences (Engel, et al., 1986). Research demonstrates that choice behavior cannot be fully understood through attitudinal behavior alone. Situational influence must be taken into consideration -- in other words factors outside the basic tendencies of the individual and beyond the "characteristics of the stimulus object to be acted upon" (Engel, et al.1986, p.145). Engel used five dimensions to describe situations. They are:

1. Physical surroundings (noise and light levels, etc.).
2. Social surroundings (motivation or lifestyle).
3. Task definition (reasons for shopping and goals of the process).
4. Temporal perspective (time of the day and/or time pressures).
5. Antecedent conditions (mood, having cash on hand, etc.).

Robertson et al (1984) defined the adoption process or brand loyalty as making a decision about a product and making repeated purchases. They set up a hierarchy of stages in the process as follows: the consumer directs his attention to a product, he gains knowledge about the product, he develops an interest in the product, he evaluates the product's ability to meet certain needs and he tries the product. On the other hand, brand substitution is being exposed to another alternative thus causing the consumer to re-evaluate established beliefs and attitudes (Engel,1986).

Runyon (1977) defined purchasing in terms of problem solving and borrows John Dewey's stages in his definitions. They are: problem recognition, the search for a satisfactory solution, evaluation of alternatives, purchase decision and post purchase evaluation.

Impulse purchasing represents a special case in consumer problem solving in that such purchases are unplanned and involve no search activity. This behavior closely parallells browsing in a library, as we will see later. It is estimated that almost half of the buying decisions in supermarkets are impulse decisions and store managers are justified in spending a substantial part of their marketing budgets on planning store layouts, product locations, shelf positions, special displays, etc. to aid in guiding impulse buyers.(Runyon, 1977). For example, a study carried out in Super Value Stores over a period of twelve weeks indicated that an item given special display will increase in sales an average of 550%, chiefly because displays appeal to

impulse buyers (Runyon).

The following are the four types of impulse purchases as outlined by Runyon:

1. Pure impulse - breaking a normal buying pattern.
2. Reminder impulse - some in-store stimulus reminds the shopper that the item is needed.
3. Suggestive impulse - the shopper sees an item for the first time and visualizes a need for it.
4. Planned impulse - the shopper makes a deliberate purchase decision on the basis of price, specials, coupons, etc.

The research conducted in the retail sector is extensive and very supportive of the theories of consumer behavior. The Point of Purchase Advertising Institute studied the buying habits of 12,131 shoppers in 40 markets in 5 geographical locations. They found that 57.4% of purchases are in-store decisions, that 39% are impulse, and 13.4% are preplanned by product not brand. They recommended that "retailers who want to boost sales...(should) beef up their merchandizing and jazz up their displays" (POPAI, p.26,1984).

The most extensive and detailed study was done in eight Publix stores in central Florida. Merchandise scanners were installed in all eight stores in order to have an exact record of purchases. They studied the effects of newspaper ads, displays at the check-out counter or point-of-purchase displays, display location and display age on sales. They reported that point-of-purchase displays increased sales an average of 445%, that prime display locations increased sales by 363% and that sales of displayed items decreases significantly after the first week (Progressive Grocer, 1980).

Marketing News (1983) reported that sales of Old Farmer's Almanac increased in 2000 stores anywhere from 212% to 599%. Their displays were in prime locations, usually point of purchase, and the books were faced front (Marketing News, May 27, 1983).

Huffman (1980) wrote that "it is somewhere within the first 10 or 20 feet that they [shoppers] decide whether to retreat or to explore further.... Books on gondolas (and shelves, if possible) are best merchandized when shown both face out and spined....While bookjackets are designed to be faced out, too many jackets on one line are overwhelming" (Huffman, p.54-8).

Similarly, Maryles (1978) reviewed a new display rack system being marketed by Deijon, Inc. They are interchangeable modular displays which make all the books on the rack visible and faced front. Harlequin Books reported a 68% sales increase after a six month test period in which these displays were used. Time-Life tested a custom designed display for their "How To" series. Their preliminary results showed that the displays created a greater customer awareness of the books (Maryles, 1978).

The better we understand these basics of consumer research the better we can plan marketing for our libraries. Taylor and Johnson (1973) conducted an involved study of public library use in Great Britain in 1972. They found that two-thirds of library users were visiting the library for personal and recreational reasons and that they were looking for any novel of interest. This suggests that the impulse behavior is at work in library patrons as well as grocery shoppers. Taylor and Johnson also

recognized that patrons are not always aware of what is available and suggested that the full range of resources be demonstrated so that a demand can be created. "At all libraries users should expect to be confronted by the unexpected (Taylor and Johnson, p.60). They recommended that library managers observe book selling practices and provide more facilities for book displays and exhibits.

There have been several studies on the effectiveness of displays in libraries. Goldhor (1972, 1981) tested the hypothesis in three public libraries that books displayed in a prime location will circulate more and found a significant increase in the circulation of books in prime location displays. Baker (1985) attempted to determine why displayed books circulate more and found that the circulation of books in prime displays increased 405% to 590% in one library and 708% to 784% in another. However, circulation of books in non-prime displays remained the same. This implies that the positioning of the display is a vital factor influencing use. Aguilar (1982) took the theory of book displays to the community college environment and found that displays work there as well, even when using books randomly selected from the entire circulating collection. He supported Golhor's theories on browsing with the results of a user survey showing that those choosing books from a display were not looking for study materials.

Baker (1986) identified three characteristics of library browsers. First, they do not attempt to identify a specific title

by using the card catalog or some other tool but instead go straight to the shelves to look for a book. Second, as Taylor and Johnson noted (1972), they are looking for any book that will meet their needs. Third, since they do not have a specific title in mind, they are succeptible to influence in their decision making. Baker pointed out that browsers are subject to user frustration when a collection becomes to large to scan easily. She suggested that librarians should help browsers "narrow their selection by developing strategies to focus patron attention on a smaller number of titles." Book lists and book displays are simple and effective strategies which can accomplish this when properly designed. They tend to work because "they place little or no burden of effort on the potential user and because they require little time to use" (Baker, 1986).

Green (1981) wrote an excellent article on techniques libraries can use in merchandising. Her findings supported the theories of book displays and agreed with the recommendation of Taylor and Johnson that libraries adopt the bookselling techniques used in the retail sector. She mentioned the use of face-front display on the top and bottom shelves and on the shelf ends to give "movement and interest to what before was only a row of spines" (Green, p.38). She also suggested having end aisle displays as in the supermarket. She stated that even though no studies have been made on the amount of material checked out on impulse, it has been proven that a high amount of purchases are made on impulse and suggests that libraries make books more

accessible and available in a more contemporary manner. She cited the merchandising program at the Dallas Public Library where she is Director of Selection and Acqusitions as an example. In the few months following the implementation of a merchandising program, circulation increased by 10%. Weeding is high on her list of suggestions; it creates space by eliminating out-dated, unattractive and non-circulating items. "If the patron won't touch it, it may not be valuable" (Green, 1981, p.38).

Lasky (1977) wrote about paperback displays and reminded librarians that publishers emphasize face-out displays that show a great many titles to attract attention. He maintained that the "need for effective and attractive face-out displays exists as much in the library as it does in book stores or supermarkets" (Lasky, p. 32). He also quoted Daniel Fader from a conference speech that "if books can't be displayed face-out, forget it" (Lasky, p.33). He described the Montgomery County, Maryland Public Library method of displaying paperbacks and quoted the assistant coordinator of adult services, Jane Hirsch, that the books are displayed with the "front cover always facing out...This is instant sales appeal" (Lasky, p.34).

In summary then, it seems that libraries can benefit from the techniques used in retail marketing to boost the circulation of all types of books in, perhaps, all types of libraries. Impulse shoppers, bookstore browsers and library browsers appear to be displaying the same consumer behaviors and are equally succeptible to attention getting devices such as displays of the varying types

mentioned above.

METHODOLOGY

The purpose of this study was to look at one method of book display, that is face-front, and test the hypothesis that books consistently displayed by this method circulate significantly more than those books displayed spine-front by narrowing browsers choices, thus decreasing user frustration. However, in order to statistcally test the data in a valid manner, a null hypothesis must be used. Therefore, the formal hypothesis of this study is that books displayed face-front will not circulate significantly more than those books displayed spine-front.

The experimental design used for this study was the four-cell pretest-posttest pattern. (Fig. 1). In this type of controlled experiment, two like groups are identified and an experimental variable is assigned to one of those groups, in this case group Y2. The groups are measured before and after the test. Y1 should not differ significantly from X1 and X2. If Y2 varies from the other groups by more than just chance, then it could be thought that the experimental variable led to or caused the difference.

BEFORE	AFTER	
X1	Y1	CONTROL GROUP
X2	Y2	EXPERIMENTAL GROUP

Fig. 1. The Four-Cell Pattern of Controlled Experiment

The research was conducted at the Parkwood Branch of the Durham Public Library in North Carolina. Books at least four

months old from the Adult Current Fiction, which is housed at the front of the library with books customarily shelved both face-front and spine-front, were chosen for the study group. This section was chosen in order to eliminate two problems -- bias on the part of the patron toward very new books and bias toward an entirely new display method. In addition, the seven-day circulation period of this section would allow for more circulations and a shorter test period than, say, a two- or three-week circulation period.

All of the approximately 300 books in that section that had been in the collection at least four months were entered as a separate record in a computer database, PC-File. Two computer-generated sets of random numbers were used to create the two samples, one for the control group and one for the experimental group. Those book records that matched the random numbers were kept in the database, and those that did not were deleted. The sample books were pulled from the shelves as were any circulation cards for those books that were checked out. The experimental group was marked with red dots on the spines of the books to cue the shelvers that these were ALWAYS to be displayed face-front. The book cards were also marked with small red dots to signal the circulation staff to mark any books with a red dot that had been in circulation when the test period began. The control group was only marked with a yellow dot on the book circulation card so that they could be easily found at the end of the test period. The books were then returned to the shelves,

each group displayed accordingly, and a key was made to the color codings and left at the circulation desk for the staff to follow.

Following the four-cell pattern, the control group was displayed spine out only (Y1) during the test period. The experimental group was displayed face-front during the test period (Y2). Both groups were randomly and haphazardly displayed face-front during the pre-test period (X1 and X2) but no record of which books were displayed this way were kept by the librarian. The pre-test circulation figures (X1 and X2) were taken from the two months preceeding the test period (Y1 and Y2). The test period was then run for two months.

At the end of the test period, all the books and book cards were pulled from the shelves and the circulation files for tabulation. The due dates that fell within the pre-test and test periods were entered into the record for each book on the database. The data was then analyzed using the Statistical Package for Social Sciences-X.

RESULTS

In order to determine the effect of face-front display on circulation, the control group and the experimental group were compared using analysis of variance (ANOVA). The average number of circulations per book was 3.30 for the control group and 3.28 for the experimental group during the pre-test period. This difference was not statistically significant. The average number of circulations during the post-test period was 2.58 for the

control group and 4.70 for the experimental group. This difference was significant at the .000 level, implying the experimental variable of face-front dispaly was associated with the circulation increase.

A review of the weekly circulation figures of both the experimental and control groups also suggests that face-front display was the causal factor of the circulation differences. (Fig. 2) It shows a noticeable divergence of the numbers of circulations per week with the first full week of the post-test period (week 10).

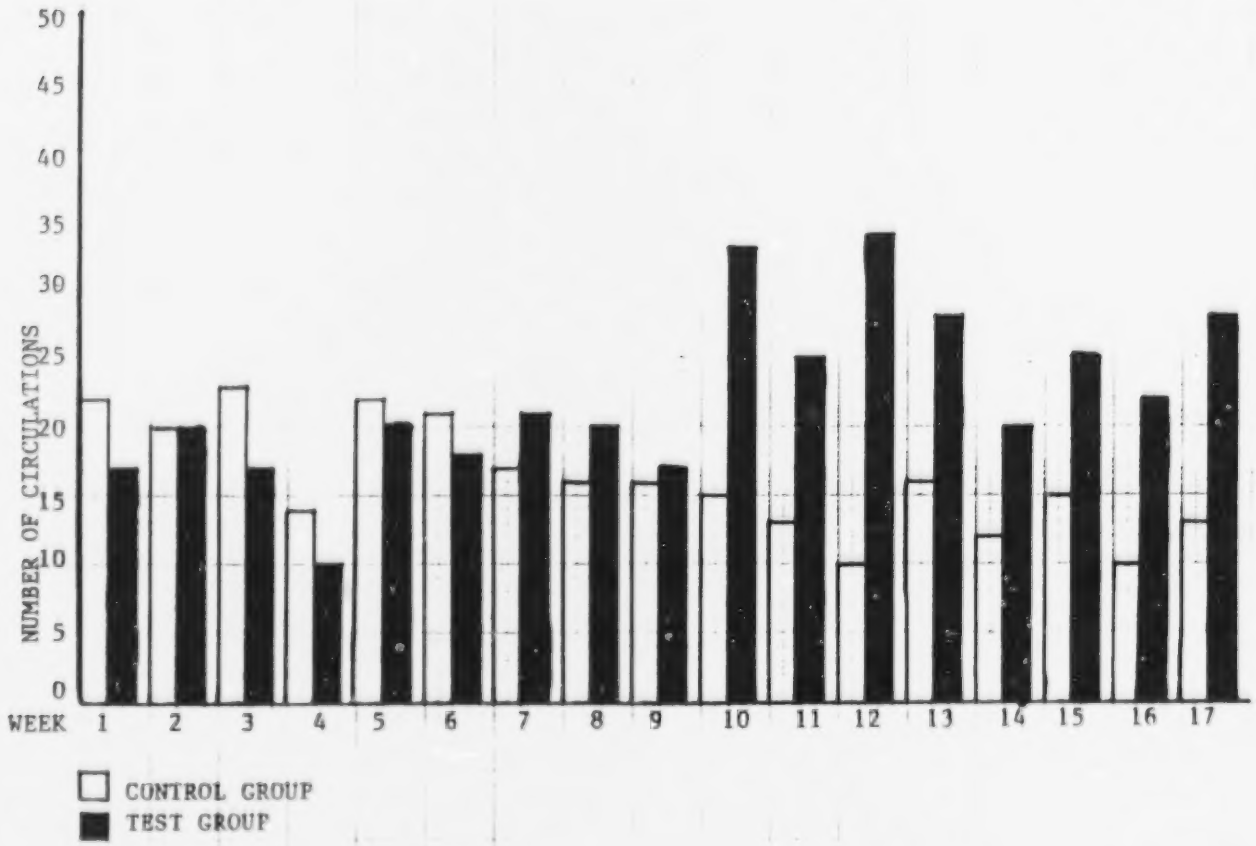

FIG. 2 COMPARISON OF WEEKLY CIRCULATION FIGURES BY GROUP

Therefore, the null hypothesis, that face-front display will not increase circulation, can be rejected. This method of display does have an effect on browsers by helping their brains wade through all the stimuli by gaining their attention and thus narrowing their choices and causing them to select certain titles.

IMPLICATIONS FOR FURTHER RESEARCH

Even though this was a limited study, it shows that the method of display, not just the display itself, can significantly increase the circulation of books. Much has been written in marketing about what attracts a shoppers attention, and these theories can be applied to library browsers with the same effect.

Future research must be done however to substantiate the findings of this study. Studies in different types and sizes of libraries will need to be undertaken. Research on bookjackets themselves should be done to study just what attracts the attention of the browser. Questionnaires could be used in conjunction with a controlled experiment to find out if patrons are aware of how they are choosing their reading materials. It would also be interesting to introduce such variables as height and location into a study of face-front display.

This has been an extremely interesting and rewarding research project and, perhaps it will serve as a starting point for future research for myself and, hopefully others.

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